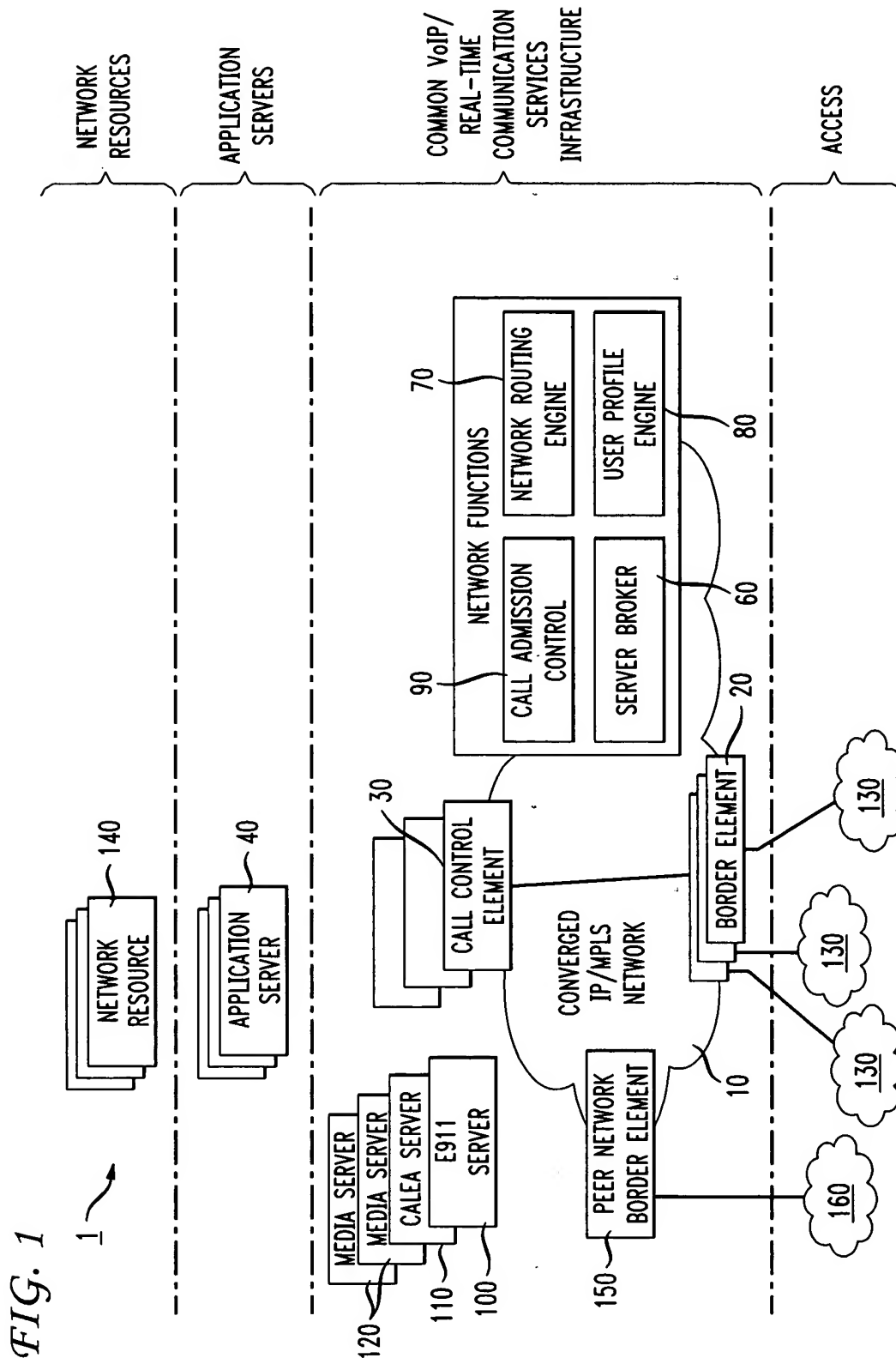




AN ACCESS INDEPENDENT COMMON ARCHITECTURE FOR REAL-TIME
COMMUNICATIONS SERVICES FOR NETWORKING ENVIRONMENTS

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Application No.: 10/748,707

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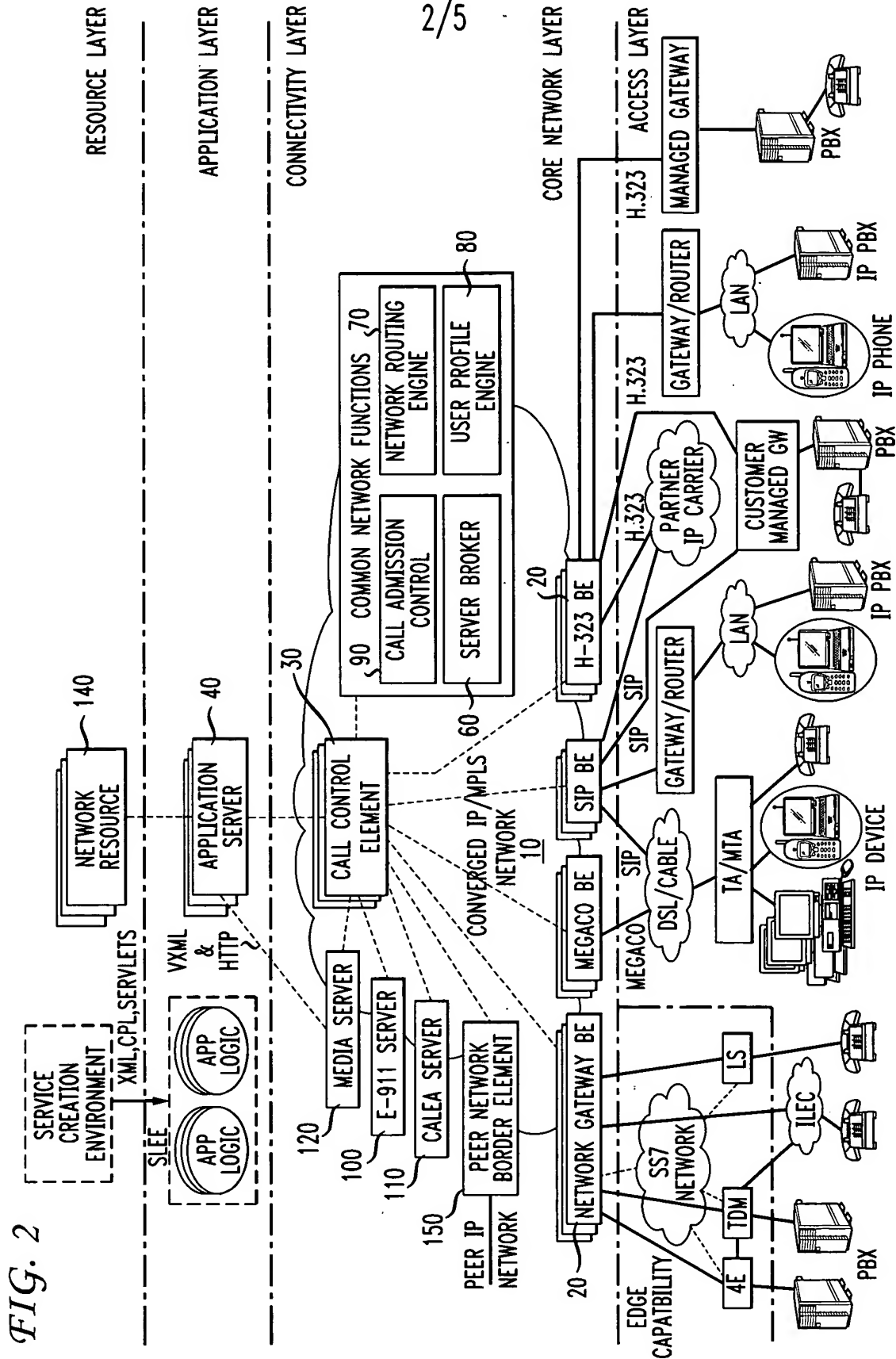


FIG. 3

VoIP INFRASTRUCTURE

The diagram illustrates a VoIP infrastructure architecture, divided into three main sections by dashed lines: **VoIP INFRASTRUCTURE**, **IP CORE NETWORK**, and **ACCESS**.

VoIP INFRASTRUCTURE:

- 120 MEDIA SERVER (VXML BASED):** Connected to the **CALL CONTROL ELEMENT** via **VXMP & HTTP**.
- CALL CONTROL ELEMENT:** A central component that interfaces with various network elements. It connects to **90 COMMON NETWORK FUNCTIONS** (including **CALL ADMISSION CONTROL**, **SERVER BROKER**, **NETWORK ROUTING ENGINE**, and **USER PROFILE ENGINE**) via **SIP**.
- 150 PEER IP NETWORK:** Contains a **PEER NETWORK BORDER ELEMENT** that connects to the **CALL CONTROL ELEMENT** via **SIP**.
- 10 CONVERGED IP/MPLS NETWORK:** A central hub connecting to multiple **H-323 BE** (Border Elements) via **SIP**.
- 20 NETWORK GATEWAY BE:** Connects to the **PEER NETWORK BORDER ELEMENT** via **SIP** and to the **SS7 NETWORK** via **EDGE CAPABILITY**.
- 21 MEGACO BE:** Connects to the **CONVERGED IP/MPLS NETWORK** via **SIP** and to the **SS7 NETWORK** via **MEGACO**.
- 22 SIP BE:** Connects to the **CONVERGED IP/MPLS NETWORK** via **SIP** and to the **SS7 NETWORK** via **SIP**.
- 23 H-323 BE:** Connects to the **CONVERGED IP/MPLS NETWORK** via **SIP** and to the **SS7 NETWORK** via **H.323**.

IP CORE NETWORK:

- MANAGED GATEWAY:** Connects to the **H-323 BE** via **H.323**.
- MANAGED ROUTER:** Connects to the **MANAGED GATEWAY** and to the **ACCESS** section via **H.323**.

ACCESS:

- 4E TDM:** Connects to the **MANAGED ROUTER** via **H.323** and to the **SS7 NETWORK** via **EDGE CAPABILITY**.
- ILEC:** Connects to the **SS7 NETWORK** via **H.323**.
- DSL/CABLE:** Connects to the **TA/MTA** (Terminal Adapter/Multi-Terminal Adapter) via **H.323**.
- IP DEVICE:** Connects to the **SS7 NETWORK** via **H.323**.
- PBX:** Connects to the **SS7 NETWORK** via **H.323**.
- CUSTOMER MANAGED GW:** Connects to the **SS7 NETWORK** via **H.323** and to the **MANAGED ROUTER** via **H.323**.
- PARTNER IP CARRIER:** Connects to the **MANAGED ROUTER** via **H.323**.
- ISP:** Connects to the **MANAGED ROUTER** via **H.323**.
- IP CORE NETWORK:** Connects to the **MANAGED ROUTER** via **H.323**.

The diagram shows a complex interconnection of these components, enabling VoIP services across different network types and access technologies.

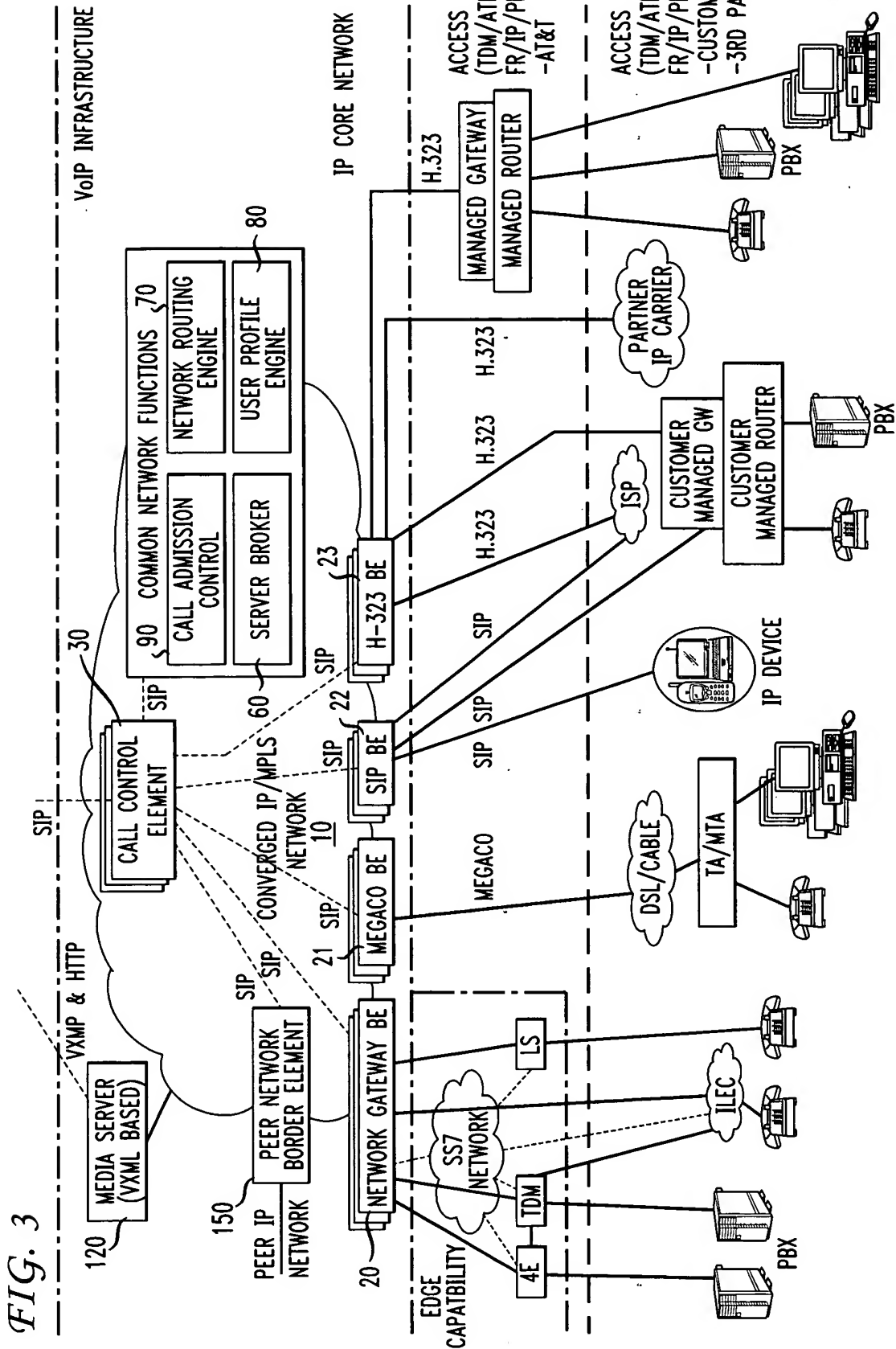
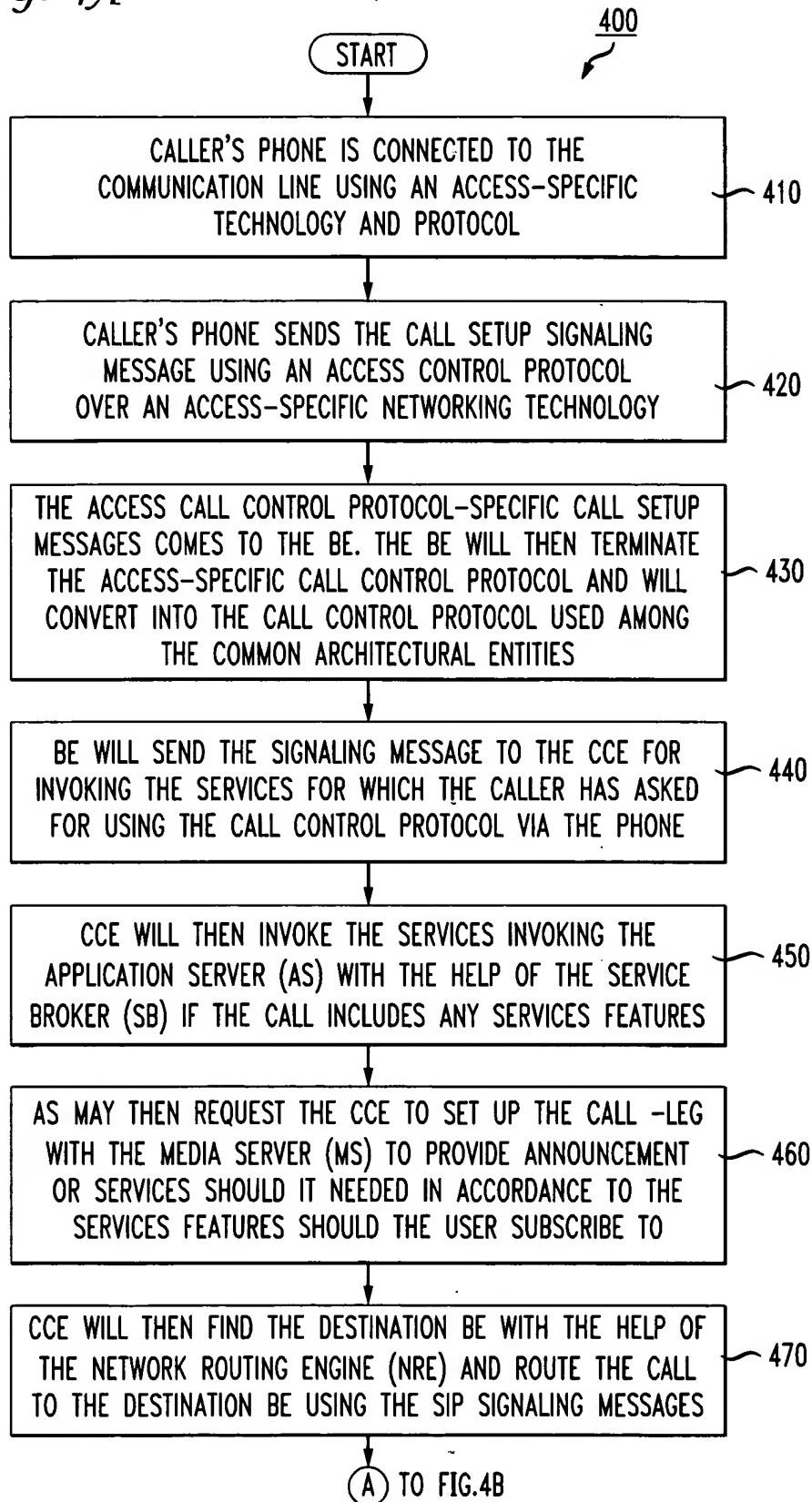


FIG. 4A

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FIG. 4B

